



SEQUENCE LISTING

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<110> Liljegren, Sarah
Yanofsky, Martin F.
The Regents of the University of California

<120> Control of Fruit Dehiscence in Arabidopsis by
INDEHISCENT1 Genes

<130> 19452A-000700US

<140> US 09/548,971

<141> 2000-04-13

<150> US 60/090,649

<151> 1998-06-25

<150> US 09/339,998

<151> 1999-06-25

<160> 9

<170> PatentIn Ver. 2.1

<210> 1

<211> 3856

<212> DNA

<213> Arabidopsis thaliana

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<223> INDEHISCENT1 (IND1) genomic

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<221> CDS

<222> (2765) .. (3361)

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 gtc tgc tcc aaa agc aga tcc aac cac agc ccc aaa aga agc atg atg 2857
 Val Ser Ser Lys Ser Arg Ser Asn His Ser Pro Lys Arg Ser Met Met
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 Glu Pro Gln Pro His His Leu Leu Met Asp Trp Asn Lys Ala Asn Asp
 35 40 45
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 Met Leu Asp Pro Pro Pro Glu Thr Leu Ile His Leu Asp Glu Asp Glu
 65 70 75
 gag tac gat gaa gac atg gat gcg atg aag gag atg cag tac atg atc 3049
 Glu Tyr Asp Glu Asp Met Asp Ala Met Lys Glu Met Gln Tyr Met Ile
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 gcc gtc atg cag ccc gta gac atc gac cct gcc acg gtc cct aag ccg 3097
 Ala Val Met Gln Pro Val Asp Ile Asp Pro Ala Thr Val Pro Lys Pro
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 aac cgc cgt aac gta agg ata agc gac gat cct cag acg gtg gtt gct 3145
 Asn Arg Arg Asn Val Arg Ile Ser Asp Asp Pro Gln Thr Val Val Ala
 115 120 125
 cgt cgg cgt cgg gaa agg atc agc gag aag atc cga att ctc aag agg 3193
 Arg Arg Arg Arg Glu Arg Ile Ser Glu Lys Ile Arg Ile Leu Lys Arg
 130 135 140
 atc gtg cct ggt ggt gcg aag atg gac aca gct tcc atg ctc gac gaa 3241
 Ile Val Pro Gly Gly Ala Lys Met Asp Thr Ala Ser Met Leu Asp Glu
 145 150 155
 gcc ata cgt tac acc aag ttc ttg aaa cgg cag gtg agg att ctt cag 3289
 Ala Ile Arg Tyr Thr Lys Phe Leu Lys Arg Gln Val Arg Ile Leu Gln
 160 165 170 175
 cct cac tct cag att gga gct cct atg gct aac ccc tct tac ctt tgt 3337
 Pro His Ser Gln Ile Gly Ala Pro Met Ala Asn Pro Ser Tyr Leu Cys
 180 185 190
 tat tac cac aac tcc caa ccc tga tgaactacac agaagctcgc tagctagaca 3391
 Tyr Tyr His Asn Ser Gln Pro
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35 40 45
Leu Thr Gln Glu His Ala Ala Phe Leu Asn Asp Pro His His Leu Met
50 55 60
Leu Asp Pro Pro Pro Glu Thr Leu Ile His Leu Asp Glu Asp Glu Glu
65 70 75 80
Tyr Asp Glu Asp Met Asp Ala Met Lys Glu Met Gln Tyr Met Ile Ala
85 90 95
Val Met Gln Pro Val Asp Ile Asp Pro Ala Thr Val Pro Lys Pro Asn
100 105 110
Arg Arg Asn Val Arg Ile Ser Asp Asp Pro Gln Thr Val Val Ala Arg
115 120 125
Arg Arg Arg Glu Arg Ile Ser Glu Lys Ile Arg Ile Leu Lys Arg Ile
130 135 140
Val Pro Gly Gly Ala Lys Met Asp Thr Ala Ser Met Leu Asp Glu Ala
145 150 155 160
Ile Arg Tyr Thr Lys Phe Leu Lys Arg Gln Val Arg Ile Leu Gln Pro
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His Ser Gln Ile Gly Ala Pro Met Ala Asn Pro Ser Tyr Leu Cys Tyr
180 185 190
Tyr His Asn Ser Gln Pro
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<210> 3
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<220>
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| tgcaaatacc | atatgtccat | atccatcctt | ttcttttgtt | tgaactgaac | attctaattt | 120 |
| tgtaaaagaa | aaaacqttat | gttaatatca | ccgtaggcaa | aaaaaatatc | tcatcatatt | 180 |
| aaatttttat | tataagatta | tacattctct | cgttgtaaga | gttactccaa | ttgcaagtgt | 240 |
| tgtattaact | aataaaaagg | acgaaagtag | gaagcttata | attaattgat | gttgcatagt | 300 |
| actggatatat | tggtgatgaa | tataacaagt | atgaacatta | atgcatgaaa | cgggggtattt | 360 |
| tgtcttgaac | tcattaaagg | caatgtgaaa | agaagatgtg | aggtctcatt | ttgaaaattt | 420 |
| atcttctagc | tttgtcgatt | ttaaatctat | gaaatgaacg | caacatatag | aaatttcatg | 480 |
| tggacaacga | catttagacg | gtatcttaat | tagaccgatt | aattagtaat | atacttatat | 540 |
| atataattag | tggtgattat | aagtttactt | atccacttga | gaatttaaac | aatgggcaat | 600 |
| accttaaatgt | cgaagaagc | cgtccccact | tcgtgtaatg | agttatgggg | gagagatcct | 660 |
| gttaaatacgt | caaataaaaac | aacttaagaa | ctagaaattg | acaccaaaaa | tcataaagag | 720 |
| aacgttgaag | aagtcattta | tcgtatccag | ctcatatttc | ctagctaaga | tcaaatacaag | 780 |
| gccgttgaaa | gggcttgtaa | gaaaatgtcg | aagaaaccgt | gggggtttaga | agaaagacaa | 840 |
| gaaatagaag | aacaatgatg | ttaaattgcc | tattttgggtg | tataggagtt | gtcaaaagag | 900 |
| gagagagaga | agaaaattag | gtcaaaaataa | tgagcactaa | aaatggagac | atgtgttgag | 960 |
| taactattac | aagagcgact | tatgcttcct | tatggcaatg | atatccaaac | caaagtgcaa | 1020 |
| cgctcctttt | ttgccctaata | ttcgtaaagt | ctctctcctt | cttcgtcctt | aggaaaaacc | 1080 |
| ctagaaattt | aatcccttgt | tcttgatcct | gctttttgag | taaccatgat | tttgaccaca | 1140 |
| cactatttct | tctatctttt | gtggctctata | ggattttgct | ttatatgtgt | ttcttgtatt | 1200 |
| gctccgtacg | tacgtatacg | aattttaaatg | gttataacaa | ggtttatata | aactagcaca | 1260 |
| aatgagtcca | tgaaatttgt | tagcgaaaaa | ggtagaaata | tattgagtct | ttaaacggca | 1320 |
| atatatataa | ttttgctgca | aaacttagct | ttaatcatga | tctaatagata | ttttctttaa | 1380 |
| tttcctttgc | caaattaatc | acatgcacgg | atttttggca | agttatgtgt | cgaattcttc | 1440 |
| cattcacaca | acactaaact | taattagaac | tctaggaaat | atttttaaata | gacaacttta | 1500 |
| tcgaaaaaaa | tttagttatg | aaaacaattc | cagaattaaa | catgagctat | ataatttaag | 1560 |
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| ttgatttctt | atgtttttta | tttatggaat | tttaagacgg | attgtttagg | tcgtttctct | 1860 |
| cttttcttgt | tttctaaagt | tacttttgta | aactcatctc | ctcccaatta | gacagtcaat | 1920 |
| catatagtta | tcttttaata | tatgtctagt | tgataaaaaa | aatgaaaaaa | tactgggtgg | 1980 |
| agttctacta | atgtttgtgt | aaaaaatctg | atattatgaa | tctaataaat | ttctttgatc | 2040 |
| gtataatgtg | ggttaaattt | agtaattttt | tacataaata | agaactgtaa | tggtgatgta | 2100 |
| tattggggaa | tcagtatatt | agcttgggta | actatacttc | tggaaatact | tgaagattta | 2160 |
| actatttgca | aaattataat | ttagtcccg | aaaatacaga | cgacgggaca | cgacaacata | 2220 |
| taagcagggt | tgaatcttgg | aaaattttgt | atacataacc | tatataaata | ctaagtgtct | 2280 |
| ggttggggtc | aaaagccttt | tcaaaagtgc | cattttttta | attcaaggac | attttacata | 2340 |
| ggaaataagt | tgagtcataa | aaaataatgg | ttattttgta | aggttttttt | tttgattaaa | 2400 |
| acgcacatat | taagaagtta | gttttttttc | actaccaaat | atcaattaat | ttaaaaccat | 2460 |
| gcaaccattc | ataaaaacaat | actattaaag | aatataaata | atcacaaaat | attaaataca | 2520 |
| cttaaaattt | acataataat | ttacaaaaca | tctaattaat | tgaaacagaa | aggaaaagg | 2580 |
| aaaatatatc | ataaaatgag | acatatatcc | tataaaaaaa | aaatgaggca | tatgaagtaa | 2640 |
| ataataagag | acatgcatgt | aagcattcgg | ttaatataat | gagtcacaga | tatatatcag | 2700 |
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<211> 496

<212> DNA

<213> Arabidopsis thaliana

<220>

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<400> 4

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| gttgatatat | tatatataga | tgcataaaga | ttcgatccaa | gattgtatgg | gtgtttttaat | 120 |
| attattattc | taagatatat | gatgtacaat | tgtgtaccaa | gtttctttat | cttgatatca | 180 |

| | | | | | | |
|-------------|------------|------------|-------------|-------------|------------|-----|
| tatgcataaa | taattggtga | ataaaaagaa | gatattgatt | gtaaacaaaa | aaaagaagat | 240 |
| attgattggt | aattaggggt | tgatcattct | gtatgaaagc | tttggcctgc | aaattaattt | 300 |
| tcgatataata | tatatatata | tggagaatat | atatcaaata | cttttttaaat | ttgactataa | 360 |
| tttgtatcaa | ttatctgaat | ctgatgagtg | taggttatat | atggattagc | aaaaaagaaa | 420 |
| acaaccatta | ttacgcacct | acattaaaaa | tcattccacca | aagaagaac | catcctcaag | 480 |
| agggttcct | ctagag | | | | | 496 |

<210> 5
 <211> 5622
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<220>
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| agataatgct | tattccctaa | tatggtgcca | gccaaagtgc | aaattggcctt | tttaaataatg 120 |
| gatttctgta | tcagtgggtca | tatttgtgga | tccaacgtat | tcattcatcaa | gttctcaagt 180 |
| ttgctttcag | tgcaattcta | attcacacgt | tttaacttta | catgcatgctc | attataatta 240 |
| cttcttcact | aagacacaat | acggcacaacc | tttcagatta | tattaatctc | cataaatgaa 300 |
| ataattaacc | tcataatcaa | gattcaatgt | ttctaaatat | atatggacaa | aattttacacg 360 |
| gaagattaga | tacgtatatt | agtagattta | gtctttcgtt | tgtgcgataa | gattaaccac 420 |
| ctcatagata | gtaatatcat | tgtcaaattc | ctctcgggtt | agtcgctaaa | ttgtatcttt 480 |
| tttaagccta | aaagtagtgt | attcgcataat | gacttatcgt | cctaactttt | tttttaatta 540 |
| acaaaaaaat | cgaaaagaaa | ataatctggt | aaatattttt | taagtactcc | attaagttta 600 |
| gtttctatatt | aaaaaatgct | tgaaatttga | cagttatggt | caacaatttt | gaatcatgag 660 |
| cgatgtctag | atactcagaa | tttaatacaag | atgtcttata | aaatttggtg | tcactcgagg 720 |
| accacgcaa | aagaaaagac | taatatgatt | tttatttggt | ctggatattt | ttgtagagga 780 |
| tgaaactaag | agagtgaag | attcgaaatc | cacaatgttc | aagagagctc | aaagcaaaaa 840 |
| gaaaaatgaa | gatgaaggac | taaagaacaa | taagcaacta | cttataccct | atttccataa 900 |
| aggattcagg | tactaggaga | agttgaggca | agttnnnnnn | nattgattca | aattttcatt 960 |
| tattttttaca | atttaattca | cctaagttat | tatgcatttc | tcattcattgg | tacattttct 1020 |
| gtatagcgta | tttacaataa | tgaaataaat | taaatatgtc | ctcacgttgc | aagtagttaa 1080 |
| tgaatgtccc | cacgcaaaaa | aaaatccctc | caaatatgtc | caccttttct | tttcttttta 1140 |
| attccaaaat | taccataaac | ttttgggtta | caaaagattt | ctagaaattg | aggaagatat 1200 |
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| ctgtaaaaag | aaaatacaca | tctcacttat | agatatccat | atctatttat | atgcatgtat 1860 |
| agagaataaa | aaagtgtgag | tttctaggta | tgttgagtat | gtgctgtttg | gacaattggt 1920 |
| agatgatctg | tccatttttt | tcttttttct | tctgtgtata | aatatatattg | agcacaagaa 1980 |
| aaaactaata | accttctggt | ttcagcaact | agggtcttat | aaccttcaaa | gaaatattcc 2040 |
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| gaacaacata | attagaaaag | cagaagcagc | agttaagtgg | tactgagata | aatgatatag 2160 |
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| tggatttgat | ctatttcttg | gttatgtatc | ttgatcagga | aaagggattt | gatcatcaag | 2520 |
| attagccttc | tctctctctc | tctagatata | tttcttgaat | ttagaaatct | ttattttaatt | 2580 |
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| tagtactctc | tcctctatat | atgtgtgggt | gtgtgtgtaa | gtgtgtatat | gtatgcaaat | 3060 |
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